

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

Date of Report: December 18, 1996  
Date Received: December 12, 1996  
Project: Metro Self Monitor, PO #M55523  
Date Samples Extracted: December 16, 1996  
Date Extracts Analyzed: December 17, 1996

**RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE  
FOR CHROMIUM, COPPER, NICKEL, AND ZINC  
USING METHOD 6010**

**Samples Processed Using Method 3005A**  
Results Reported as mg/L (ppm)

<u>Sample ID</u>	<u>Chromium</u>	<u>Copper</u>	<u>Nickel</u>	<u>Zinc</u>
M55523	0.48	1.2	1.6	0.46
Method Blank	<0.05	<0.05	<0.05	<0.05

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**ENVIRONMENTAL CHEMISTS**

Date of Report: December 18, 1996

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**QUALITY ASSURANCE RESULTS  
FOR TOTAL METALS BY  
INDUCTIVELY COUPLED PLASMA (ICP)  
(METHOD 6010)**

Laboratory Code: 74503 (Duplicate)

<u>Analyte:</u>	<u>Reporting Units</u>	<u>Sample Result</u>	<u>Duplicate Result</u>	<u>Relative Percent Difference</u>	<u>Acceptance Criteria</u>
Chromium	mg/L (ppm)	<0.05	<0.05	nm	0-20
Copper	mg/L (ppm)	0.82	0.80	2	0-20
Nickel	mg/L (ppm)	<0.05	<0.05	nm	0-20
Zinc	mg/L (ppm)	0.80	0.77	4	0-20

Laboratory Code: 74503 (Matrix Spike)

<u>Analyte:</u>	<u>Reporting Units</u>	<u>Spike Level</u>	<u>Sample Result</u>	<u>% Recovery MS</u>	<u>% Recovery MSD</u>	<u>Acceptance Criteria</u>	<u>Relative Percent Difference</u>
Chromium	mg/L (ppm)	5	<0.05	98	102	80-120	4
Copper	mg/L (ppm)	5	0.82	96	100	80-120	4
Nickel	mg/L (ppm)	10	<0.05	99	101	80-120	2
Zinc	mg/L (ppm)	5	0.80	98	103	80-120	5

Laboratory Code: Spike Blank

<u>Analyte:</u>	<u>Reporting Units</u>	<u>Spike Level</u>	<u>% Recovery MS</u>	<u>% Recovery MSD</u>	<u>Acceptance Criteria</u>	<u>Relative Percent Difference</u>
Chromium	mg/L (ppm)	5	101	102	80-120	1
Copper	mg/L (ppm)	5	99	100	80-120	1
Nickel	mg/L (ppm)	10	101	102	80-120	1
Zinc	mg/L (ppm)	5	102	103	80-120	1

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

KNJ  
12.12.96  
2pm

KNJ  
12.12.96  
2pm

Send Report To: Alaskan Copper Works Contact GERALD Thompson  
Company 628 HAWFORD ST  
Address Seattle WA 98134  
City, State, Zip 382-8375 FAX # (206) 382-4309 Date 12-12-96  
Phone # (206)

PURCHASE ORDER #

m 5552 3

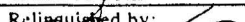
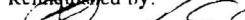
### PROJECT LOCATION

3200 6<sup>th</sup> Ave S.

### SAMPLE DISPOSAL INFORMATION

☐ Dispose after 30 days  
☒ Return Samples  
☐ Call for Instructions

[illegible]

SIGNATURE	PRINT NAME	COMPANY	Date	Time
Relinquished by: 	GERALD A. Thompson	ACW	12/12/96	1:55pm
Received by: 	S. Osborn	F+B, Inc.	12/12/96	1:55
Relinquished by:				
Received by:				

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

James E. Bruya, Ph.D.  
Beth M. Albertson, M.S.  
Bradley T. Benson  
Kelley D. Wilt

3012 16th Avenue West  
Seattle, WA 98119-2029  
TEL: (206) 285-8282  
FAX: (206) 283-5044

December 18, 1996

**INVOICE # 96ACU1218-1  
DUPLICATE COPY**

Accounts Payable  
Alaskan Copper Works  
628 South Hanford  
Seattle, WA 98134

RE: Project Metro Self Monitor, PO #M55523: Results of testing requested by  
Gerry Thompson, Project Manager for material submitted on December 12,  
1996.

1 water sample analyzed for  
Chromium, Copper, Nickel, and Zinc  
using Method 6010 @ \$65 per sample

\$ 65.00

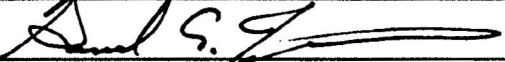
Amount Due .....

\$ 65.00





## SAMPLE CHAIN OF CUSTODY

Company Alaskan Copper Work Contact GERARD Thompson  
Address 628 HANSON ST  
City, State, Zip SEATTLE WA 98174  
Phone # (206) 382-8779 FAX # (206) 382-4709 Date 12-26-96

SITE NO.		PROJECT NAME		PURCHASE ORDER #	
7238		METRO Self monitor		M55608	
SAMPLERS (signature)				PROJECT LOCATION	
				3200 6th Ave S.	
REMARKS				SAMPLE DISPOSAL INFORMATION	
				<input type="checkbox"/> Dispose after 30 days	
				<input checked="" type="checkbox"/> Return Samples	
				<input type="checkbox"/> Call for Instructions	

[illegible]

SIGNATURE	PRINT NAME	COMPANY	Date	Time
Relinquished by: 	GERALD Thompson	ACW	12/26/86	10:25am
Received by: 	KURT JOHNSON	FBI	12/26/86	10:25am
Relinquished by:				
Received by:				

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
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3012 16th Avenue West  
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FAX: (206) 283-5044

December 18, 1996

Gerry Thompson, Project Manager  
Alaskan Copper Works  
628 South Hanford  
Seattle, WA 98134

Dear Mr. Thompson:

Included are the results from the testing of material submitted on December 12, 1996 from your Metro Self Monitor, PO #M55523 project.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Kurt Johnson  
Chemist

keh  
Enclosures  
ACU1218R.DOC